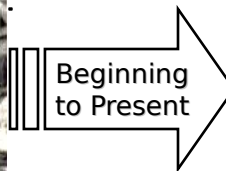

James River Partnership ***Williamsburg, Va.***

Honeywell Overview

Hopewell Plant: History

- 1915 - Dupont Munitions Plant
- 1928 - Allied Atmospheric Ammonia
- 1954 - Allied Enters Nylon Business, Begins Caprolactam Production
- 1975 - Initiated Specialty Chemicals Business
- 2001 - Began Making Merchant Caprolactam
- 2002 - World's Largest Producer of Caprolactam & Ammonium Sulfate



Honeywell

Business Segment: Chemical

- Products include:**

Sulf-N® Ammonium Sulfate

Nadone® Cyclohexanone

Naxol® Cyclohexanol

Merchant Caprolactam



Key Customers

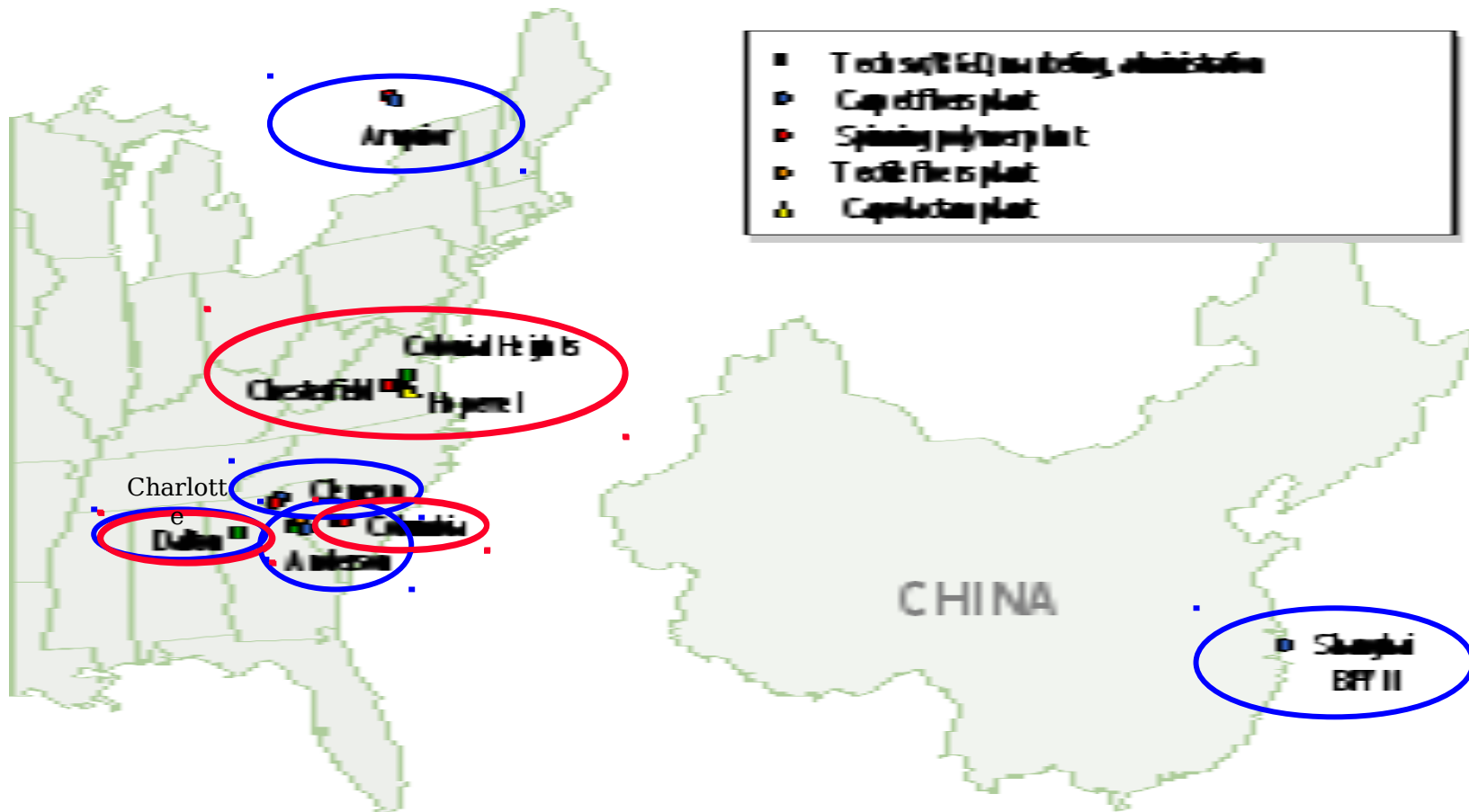
Sulfate

- Agriliance
- Heringer (Brazil)
- Bunge (Brazil)
- Scotts

Intermediates

- Beaulieu
- Firestone
- Dow Chemical

Honeywell Nylon Facilities



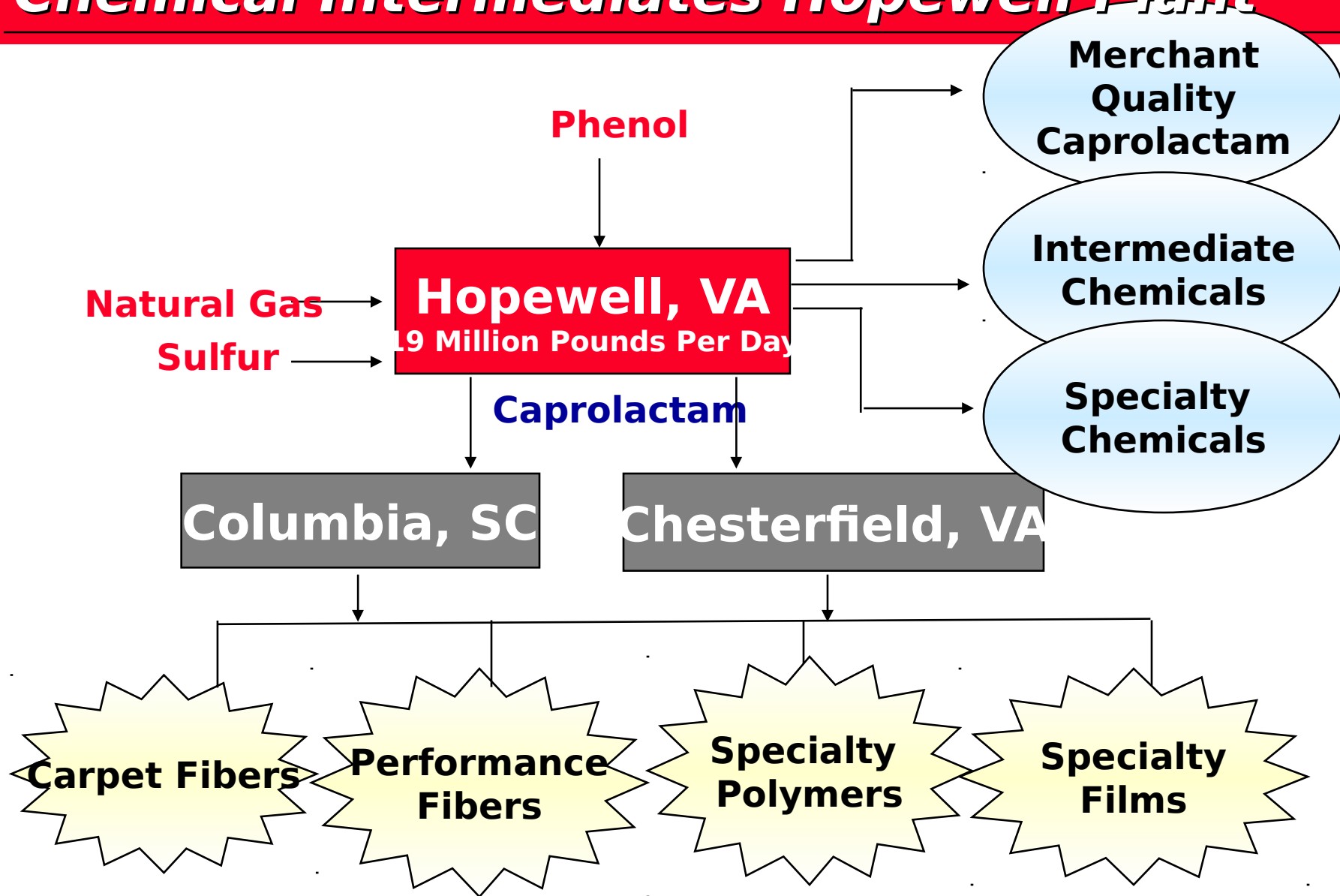
- Honeywell Facilities: ○
- Former BASF Facilities: ○
- New business has **3,800** employees

Honeywell

Honeywell Hopewell Plant Summary

- ***Plant employs about 900 people***
- **About 25 miles of railroad track in plant**
- **Consume about 11 railcars of molten sulfur every day**
- **River water pumping capacity of 135,000 gallon per minute**
- ***Largest consumer of natural gas on east coast 50 MCF/Day***
- ***1500 TPD ammonia plant***
- ***Sell several hundred TPD of CO₂ to Anheiser-Busch, Coca-Cola, Perdue and others***
- **Hopewell Plant produces Ammonium Sulfate as co-product of Caprolactam Process**
- ***Approximately 4.3 lbs AS per pound of Caprolactam***
- ***Produce about 1.7 million tons / year (over 4,500 tons per day)***
- **Ammonium sulfate is crystallized from solution to form crystalline**

Chemical Intermediates Hopewell Plant



Honeywell

Hopewell Plant: Products

Products Shipped Lbs)

Caprolactam	800
Ammonium Sulfate	3,200
Cyclohexanone	58
Cyclohexanol	11
Adipic Acid	32
Carbon Dioxide	690
Specialty Oximes	31

Products Consumed Internally

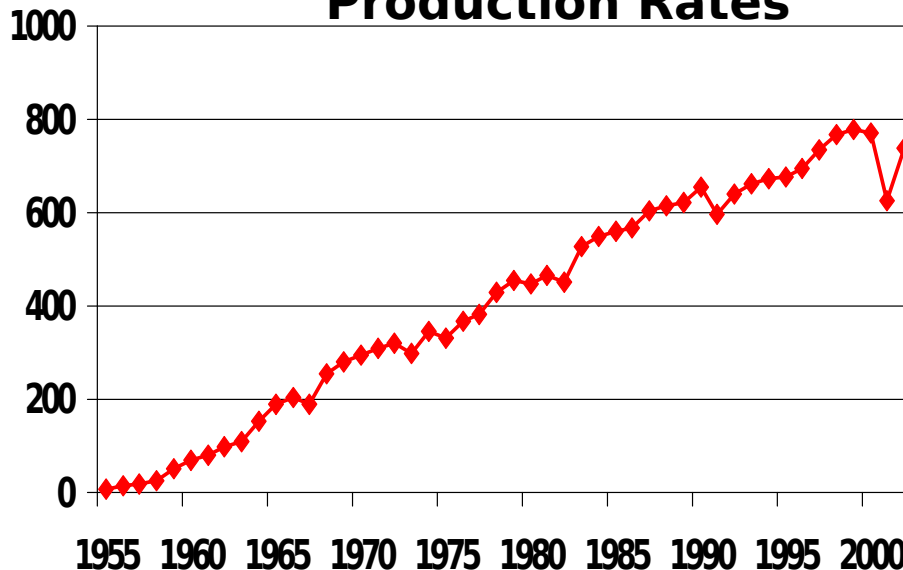
Sulfuric Acid	900
Ammonia	1,100

Total Annual Production
6,822

Annual Capacity (M

Million of
Pounds/Year

Annual Caprolactam Production Rates



SIX
sigma
plus

***Diversity & Quality in Our Product
Mix***

Honeywell

Ammonium Sulfate Production

SULF-N™
AMMONIUM SULFATE

Bringing Growth to the World

- **Contains 21% nitrogen and 24% sulfur**
- **Available in two grades**
 - **Granular for bulk blends**
 - **Standard for direct application or for dissolving into liquid fertilizers**
- **Compatible with all fertilizer products**
- **Less hygroscopic, enhanced storability**

Hopewell, VA Plant

- **World's Largest Caprolactam Production Site**
- **World's Largest Ammonium Sulfate Producer**
- **Total Production in Excess of 1.7 million tons**
 - **About 9% of World Total**
- **Multi-Modal Shipping (Marine, Rail, Truck)**



Honeywell

Activity At James River Honeywell

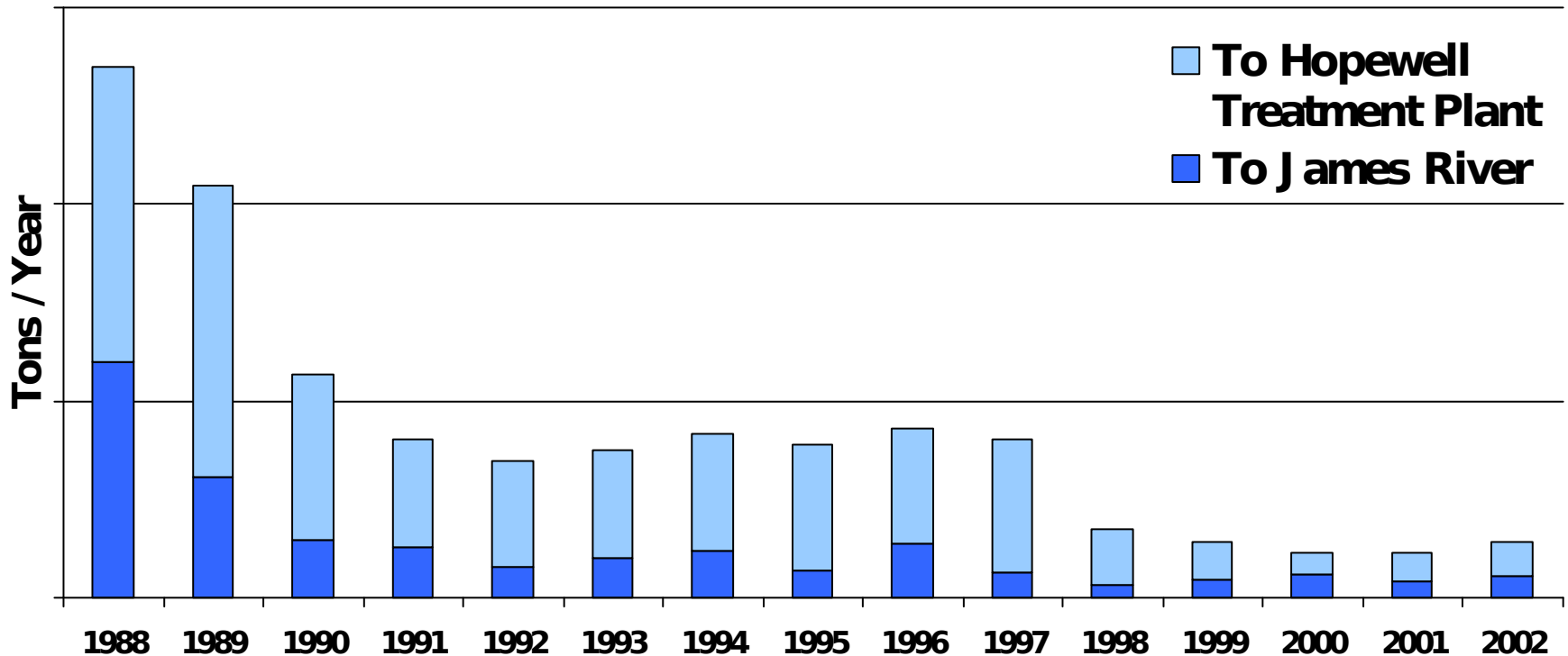
Pier

- **Fifty Five Export Vessels per year (880,000 tons)**
- **Twenty five require Top-Off in Norfolk (290,000 tons)**
- **Top Off cost an additional \$10/ton**
- **Fifteen Domestic Barges per year (62,000 tons)**
- **Total Ammonium Sulfate (940,000 tons)**
- **Phenol inbound by barge (700,000 tons)**
- **Other inbound commodities include Oleum & Oil**

Honeywell

Environmental Performance

History of Preventing Water Pollution



**Reduced NH₃-N to James River by >80%
While Increasing Plant Production Rate by
25%**

Honeywell

Projects To Reduce Nutrients



**Capital Investment Reduced Nutrient
Pollution
to Hopewell Treatment Plant
by Half & Eliminated Spikes**

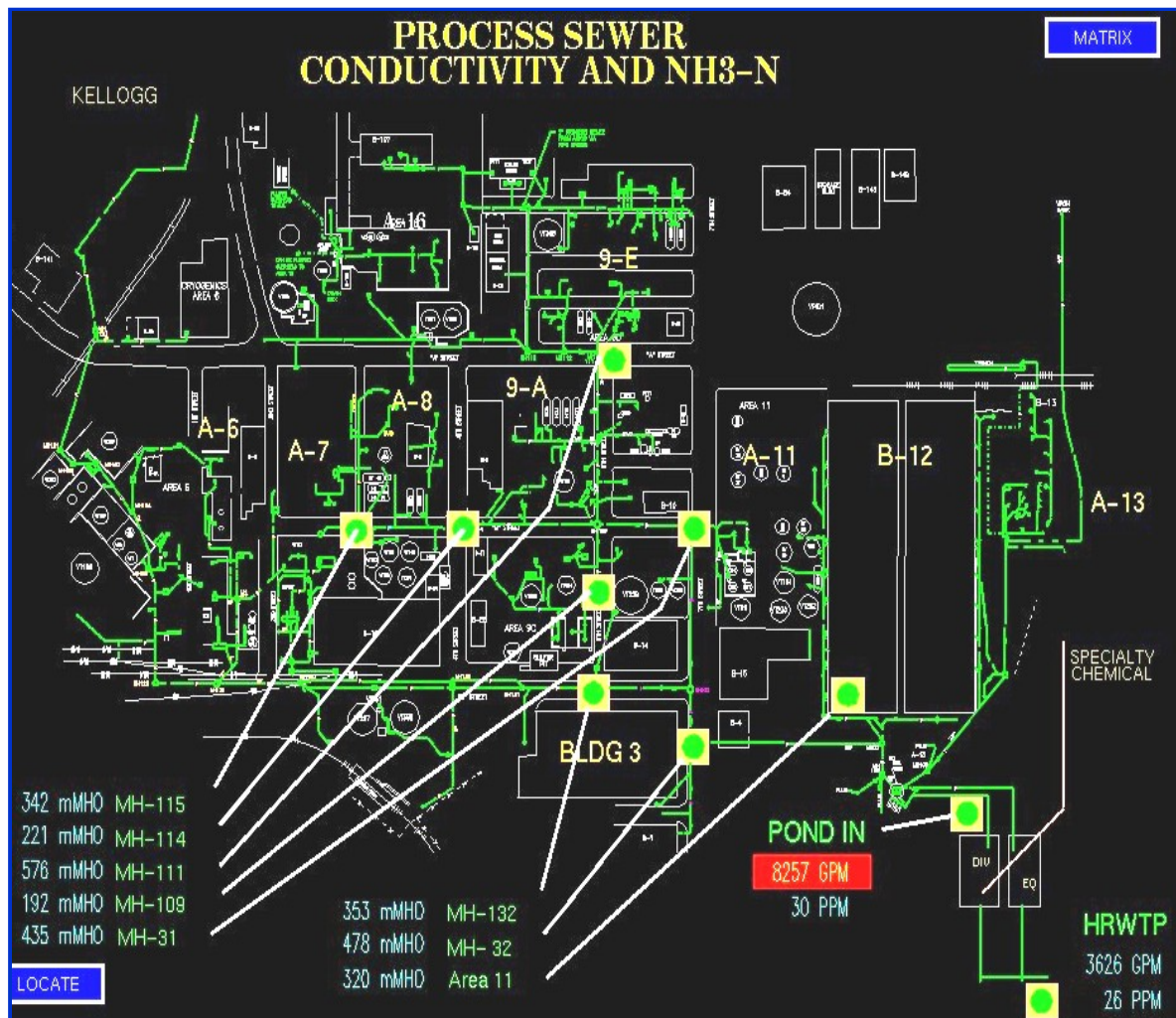
Environmental Pollution Prevention

**Gantry -
Equipment to Load Fertilizer Products
Onto Ships & Barges -
Has Oil Hydraulic Drive System
to Move Loading Arm**



New Equipment Eliminated Hydraulic Oil System

Sewer Monitoring & Response



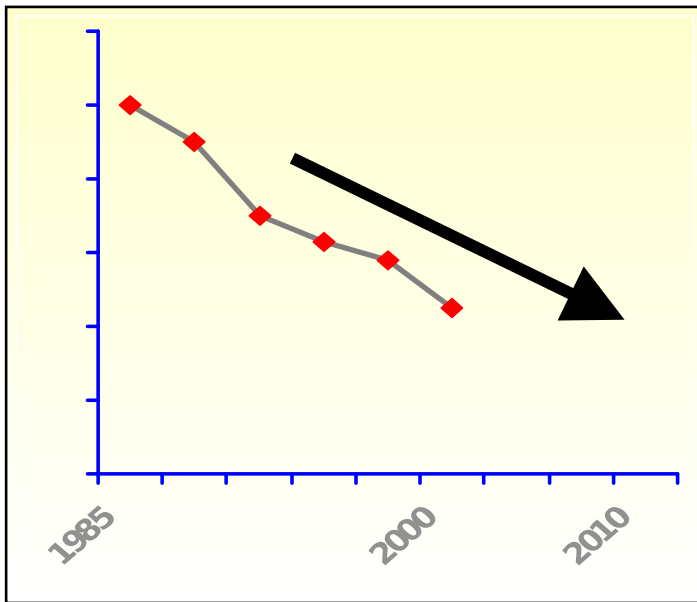
Early Detection Allows Quick Response

Certified Wildlife Habitat



Honeywell

Emissions

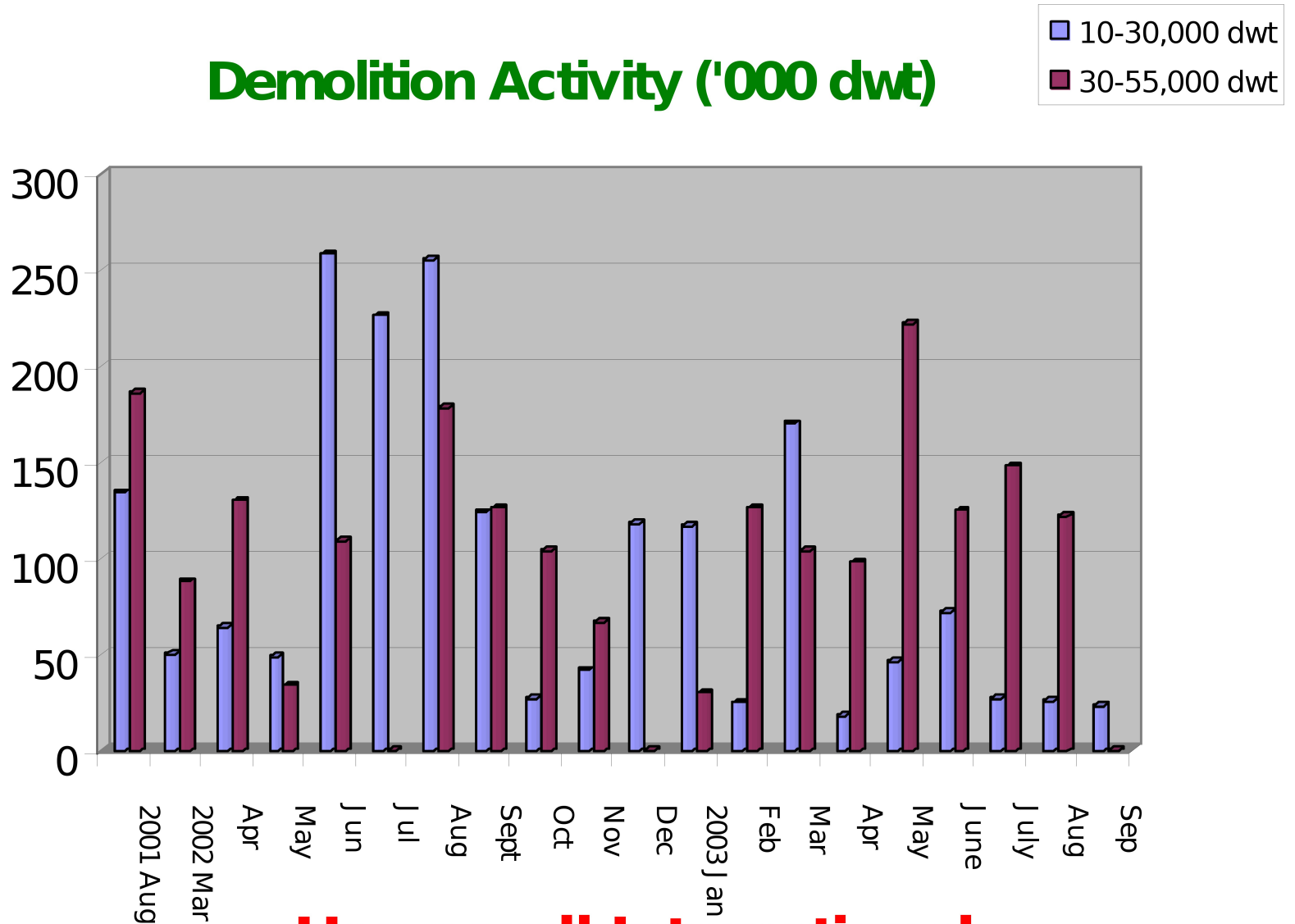


- **Nutrients to James River** ↓ **>85%**
- **Air Emissions** ↓ **>40%**
- **TRI Emissions** ↓ **70%**
- **Significant Capital investments for Environmental Protection**
- **Emphasis throughout the plant on Environmental Performance**
- **Year-To-Year Focus on Continuous Reductions With New Technology**
- **New projects planned for continued improvements**

Track Record of Decreasing Emissions

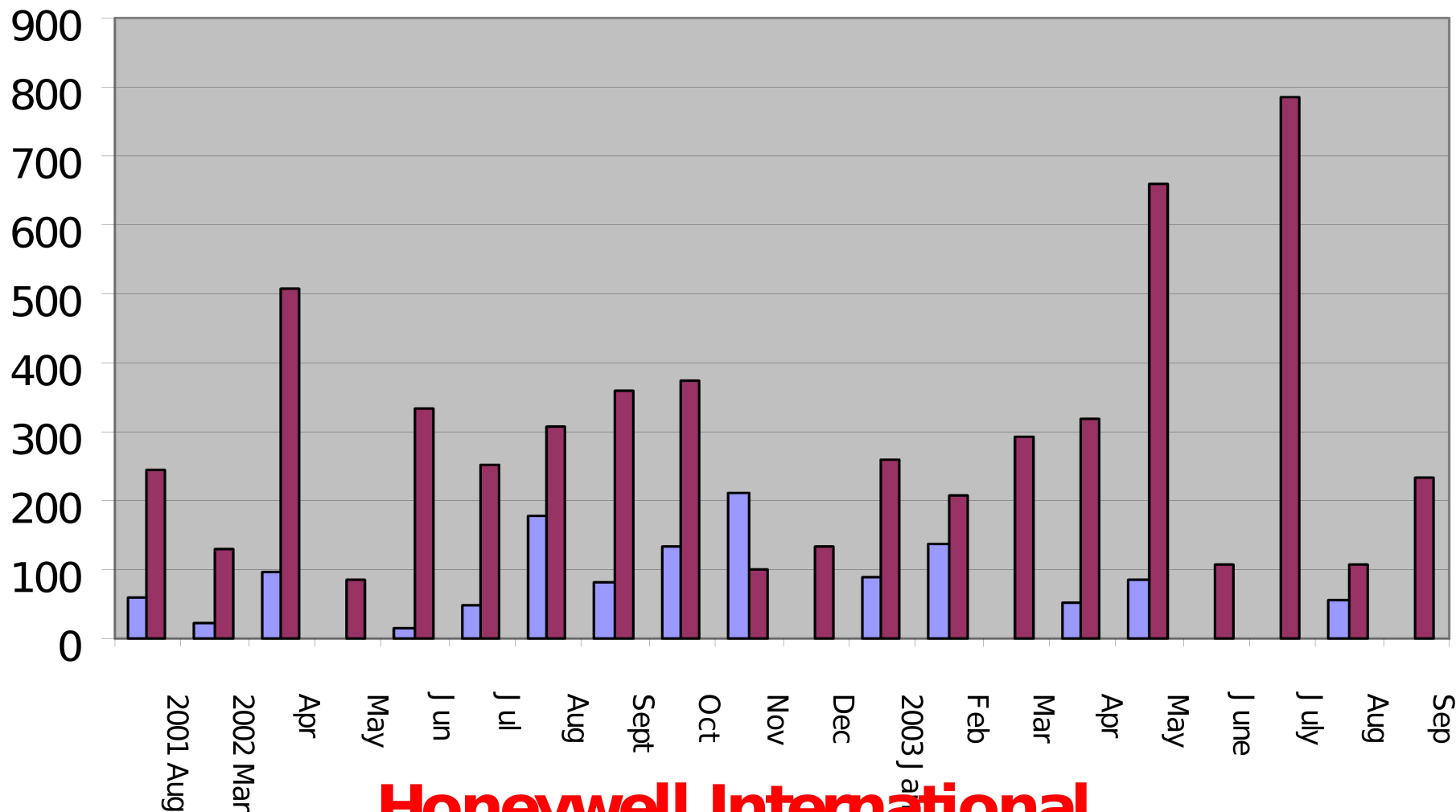
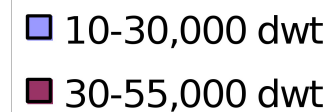
Availability of Ships

Demolition Activity ('000 dwt)



Honeywell International

New Building Orders ('000 dwt)



Honeywell International

Dry Bulk Carrier Orderbook

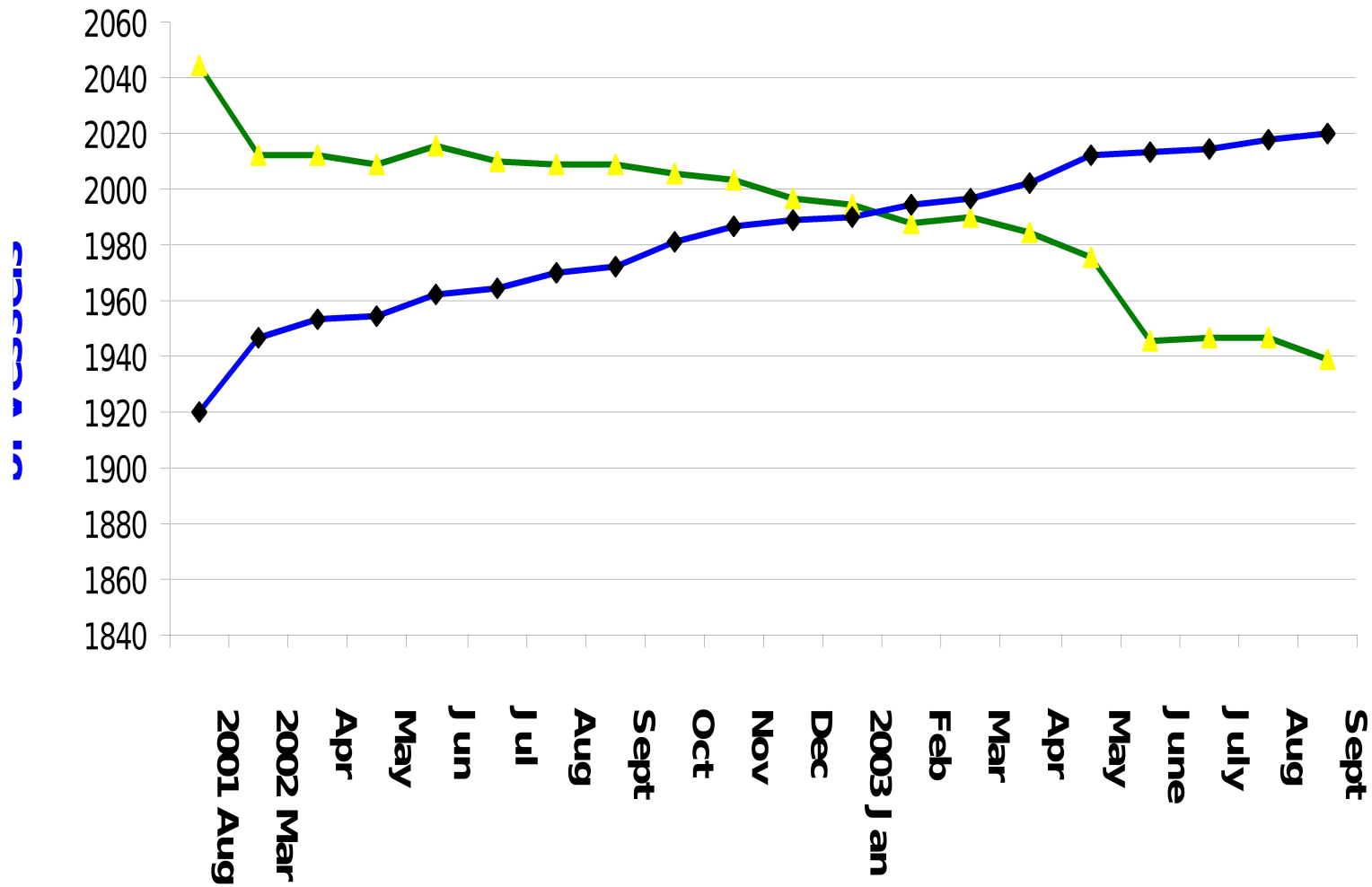
	2003	2004	2005	2006	Total	%
10-30,000 dwt (# Vssls)	25	27	4		56	2.7
30-55,000 dwt (#Vessls)	61	84	56	9	210	11.2
10-30,000dwt (total dwt)	485	559	115	0	1159	2.7
30-55,000 dwt (total dwt)	2653	3861	2518	454	9486	11.2

% = Percentage of World Fleet

Honeywell

HandySize Market Dynamics

- 10-30,000 dwt (#vssls)
- 30-55,000 dwt (#vssls)



Honeywell Wish List

- **Maintain the James River at current conditions**
- **Deepen and widen river for larger vessels**
- **Identify an upriver anchorage**

What Makes A Successful Partnership

- **Understanding of what makes each partner successful**
- **Creating win-win scenarios**
- **Trust**
- **Execution on commitments... do what you say you're going to do**

We Believe in Building Successful Partnerships